

# α-S50iB

## Mechanical specifications



<b>Clamping unit</b>						
Clamping mechanism	5 Point double toggle					
Tonnage [kN   tonf]	500   50 Increased (650   65)					
Maximum and minimum die height Double platen [mm]	350-150 Increased (400-150)					
Maximum and minimum die height Single platen [mm]	410-210 Increased (460-210)					
Clamping stroke [mm]	250					
Locating ring diameter [mm]	Ø 125					
Tie bar spacing, HxV [mm]	360 x 320					
Platen size, HxV [mm]	500 x 470					
Minimum mould size, HxV [mm] *1	205 x 185					
Maximum mold weight Double platen   Single platen (Moving-Stationary) *2	220 - 220   300 - 220					
Ejector stroke [mm]	70					
Maximum ejector force [kN   tonf]	20   2.0 Increased (60   6.0)					
<b>Injection unit</b>						
Screw diameter [mm]	18	20	22	26	28	32 *11
Injection stroke [mm]	75	75	75	95	95	95
Max. injection volume [cm <sup>3</sup> ]	19	24	29	50	58	76
Nozzle touch force [kN   tonf] *8	15   1.5 Increased (30   3.0)					
<b>Max. Injection Speed mm/s *4</b>	<b>350</b>					
Max. injection pressure (high-pressure filling mode) [MPa] *3 *5	300	360	340	290	250	190
Max. injection & Hold Pressure 1 [MPa] *3 *6	290	310	290	240	220	180
Max. injection & Hold Pressure 2 [MPa] *3 *7	260	280	260	210	190	150
Max. injection rate [cm <sup>3</sup> /s] *4	89	109	133	185	215	281
Max. screw rotation speed [min <sup>-1</sup> ] *4	450					
Machine weight Double platen   Single platen [t] *9	2.9   ≈ 2.85					
<b>Max. Injection Speed mm/s *4</b>	<b>550</b>					
Max. injection pressure (high-pressure filling mode) [MPa] *3 *5	300	330	-	-	-	-
Max. injection & Hold Pressure 1 [MPa] *3 *6	290	310	280	200	170	-
Max. injection & Hold Pressure 2 [MPa] *3 *7	260	280	260	190	170	-
Max. injection rate [cm <sup>3</sup> /s] *4	139	172	209	292	338	-
Max. screw rotation speed [min <sup>-1</sup> ]	450					
Machine weight Double platen   Single platen [t] *2	2.9   ≈ 2.85					
<b>Screw and Barrel</b>						
Number of heater zones [Barrel]	3					
Number of pyrometers [Nozzle]	1					
Total heater wattage [kW]	3.1	3.5	3.8	6.5	7.2	8.4

● standard - not available ( ) with hardware and/or software option

- \*1) Smaller mold than this size may limit clamp force.
- \*2) If the weight of a mold exceeds maximum mold weight, the molding condition may be limited.
- \*3) Maximum injection pressure and maximum hold pressure are the output of the injection unit, not the resin pressure.
  - Maximum injection pressure and maximum pack pressure are the maximum values that can be set.
- \*4) Maximum injection rate and maximum injection speed is a theoretical value.
  - Maximum injection rate and maximum injection speed can not be guaranteed when the injection pressure is maximum.
- \*5) The maximum injection pressure setting at high pressure filling mode option.
  - There is a limitation in injection time setting and pack time setting, when high pressure filling mode option is selected. (Contact sales for detail)
- \*6) Maximum injection pressure 1 and maximum hold pressure 1 are the values when the wear-resistant and anti-corrosion cylinder etc. is installed.
  - Maximum injection pressure and maximum pack pressure may vary depends on the installed screw and cylinder specifications.
- \*7) Maximum injection pressure 2 and maximum hold pressure 2 are the values when the general purpose cylinder etc. is installed.
  - Maximum injection pressure and maximum pack pressure may vary depends on the installed screw and cylinder specifications.
- \*8) Sprue break cannot be used with increased nozzle touch force option.
- \*9) The machine without option.
- \*10) The pressure conversion is 1MPa=10kgf/cm<sup>2</sup>.
- \*11) The molding condition might be limited by the resin. (Contact sales for detail)
- \*12) In case of the replacement to different screw diameter after shipment, some covers may be needed to replace. (Contact sales for detail)

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## Dimensions / Clamp layout

